RECEIVED
MAR 23 2006
MISSOURI LAND
RECLAMATION COMMISSION

Director, Doyle Childers
Land Reclamation Program
Dept. of Natural Resources
Jefferson City, Mo. 65102

Stewart/Davis
11045 Pleasant Heights
Bloomsdale, Mo. 63627

3/21/06

(Pg. (5) 4-25)

Dear Director Childers,

In regard to the proposed limestone quarry with an approximate location only 1,000 feet from the Bloomsdale Elementary School, Ste. Genevieve County Section 03, Township 38N, Range 7E: Let it be known that we RESOUNDINGLY OPPOSE such a quarry at this site. The PREVAILING concerns ARE HEALTH, SAFETY, AND LIVELIHOODS of the school children, parents, faculty, and workers; as well as the Bloomsdale Community!

There is a **forefront** issue of the application as submitted being processed as INCOMPLETE, pursuant to CSR 40-10.020, Permit Application Requirements, although 'deemed complete' for a SECOND TIME to publish 'public notifications'. It is certainly a quandary as to HOW this application is still being considered with such pertinent, and required information omitted. The RECORED documentation was submitted to several MDNR representatives personally on 1-30-06 prior to the second 'public notice period! (RE: pages 4-12)

Pursuant to the Code of State Regulations, Rules for Department of Natural Resources, Division 40, Chapter 10, 10CSR 40-10.020 Permit Application Requirements, (2) as required by section 444.772, RSMo, an applicant

SHALL PROVIDE A COMPLETE APPLICATION PACKAGE SUBMITTED WHICH INCLUDES THE FOLLOWING: ... (B) (IN PART) THE AUTHORIZED WRITTEN CONSENT OF THE APPLICANT AND **ANY OTHER PERSONS** TO GRANT ACCESS... TO THE AREA OF LAND AFFECTED UNDER THE APPLICATION OR PERMIT...

Whereas the applicant NEGLECTED to obtain the required authorized written consent of the FOUR (4) private property owners from whose private properties comprise the PRIVATE ROADWAY, which is indicated as the proposed quarry's access (RE: pages), and the same private roadway being recorded in the Recorder of Deeds Office, Ste. Genevieve County, which states as 'EXHIBIT B' (IN PART) "NOT FOR ANY COMMERCIAL USE..."; Hence, the application as submitted whereas attests by signed and notarized affidavit is INCOMPLETE and NONCOMPLIANT to the requirements as stated in 10CRS 40-10.020, (2) & (B).

The ONLY person who signed the legal affidavit, Chris Carron, is NOT an owner of ANY property which comprises the private roadway, and has **NO** authority to supersede the actual property owners, NOR to subjugate the Ste. Genevieve County Recorder of Deeds. This is a PRIVATE ROADWAY INTENDED FOR RESIDENTIAL USE!

Therefore the consent of access has **NOT** been granted, and in adhering to and upholding the Code of State Regulations, pursuant to section 444.773 RSMo, CSR 40-10.020, we VEHEMENTLY request your denial of permit to this quarry site.

If, after full awareness of the inaccessibility of the private roadway as consent has NOT been granted by all persons, there may still be consideration to permit this quarry, we hereby request a HEARING to address the noncompliance of 10CSR 40-10.020, as well as the aforementioned PREVAILING concerns of:

#1) A. HEALTH: (RE: pages 13-23) It is documented that SILICA DUST: a natural component of limestone, is a known human carcinogen, and causes chronic lung silicosis of the lungs, i.e., LONG TERM EXPOSURE TO LOW CONCENTRATIONS OF SILICA DUST. It is also documented, dated 1-28-05, by the Missouri Dept. of Labor and Industrial Relations that an "ALARMING" **49** MINES are known to be "OVEREXPOSED" with SILICA DUST! Approximately **ONLY** 1000feet away there are elementary school CHILDREN, parents, facility, and workers that will be ADVERSELY affected by this for many years, as well as the diversity of the immediate residents from infants to the elderly, all with health

concerns! With the already "ALARMING" 49 mines "OVEREXPOSED" with Silica Dust there can be NO assurance that this proposed quarry won't be HAVOC to the school and the community!

There are several immediate residents who work 7-day swing shifts, or midnights, whereas it is imperative to sleep through the day hours to prevent 'SLEEP DEPRIVATION' affecting not only health issues, but most certainly those livelihoods!

#1) B. We request: an Etiology of Silicosis specific to Missouri; an Epidemiologic Study, to include, but not limited to all aspects and effects to the elementary school children, parents, faculty, and workers, and general population of the full area to be adversely affected by this quarry's approval (Ages, current health, family histories, prevalent risk factors, etc.); SLEEP DEPRIVATION STUDY.

#2) A. SAFETY: (Re: previous pages 4-12 , & pages *lake maps*) As previously discussed in-depth that the roadway 'intended' for access to the proposed quarry site is in fact a private roadway comprised of private properties, and which is explicitly stated as "NOT FOR ANY COMMERCIALUSE...", AND consent has **NOT** been granted.

The only other 'perceived' access will be IMMEDIATELY in front of the Bloomsdale Elementary School by accessing through Alexis Carron's property, who **IS** Chris Carron's father. This will be a direct safety HAZARD to school buses full of children, and all that the school entails with the constant and conflicting daily loaded trucks, heavy equipment, and DEBRIS! These same loaded trucks, & heavy equipment with the debris will travel **through** Bloomsdale on the 2-lane US-61 highway directly in front of numerous homes, the Bloomsdale Fire Dept., and businesses including a Daycare Center!

Another PERTINENT aspect to SAFETY is the **UNREENFORCED** approximate 5-acre lake, which is depicted on the maps. This lake is, again, immediately in front of the elementary school with residential properties adjacent to its' UNREENFORCED embankment! With full knowledge that the blasting will entail a considerable part of such a quarry operation, compounded by the activity of the heavily loaded trucks, the short-sided, low-impact EARTHEN embankment will undoubtly **RUPTURE** rendering another 'Taum Sauk' scenario! With the exception that the devastation will be the Bloomsdale Elementary School, & everyone it entails, the residents, and US-61 highway!

The relevant factor of blasting is not only an immense concern of safety, but health and livelihoods as well. Which is somewhat difficult to express one issue separate from the others! When the blasts occur the effects of the **extensive** Silica Dust, noise, and concussions will be detrimental in all aspects of the issues to **every** entity of the area!!

#2) B. We request: a FULL TRANSPORTATION ANALYSIS include, but not limited to point of INGRESS/EGRESS; MSDS (Material Safety Data Sheet) with types, size, and estimate weight of loads to be transported; SITE ANALYSIS, to include, but not limited to, PERK TEST with SATURATION ANALYSIS, WATER HOLDING CAPACITIES; SUBJACENT SUPPORTIVE STUDY to include, but limited to the blast effects to the **unenforced** lake and all adjacent properties; WATER DEPLETION ANALYSIS with specific data to the effects to the watershed and the probability of subsidence of adjacent properties. All to be conducted to the standards, requirements, and guidelines under the Surface Mining Control and Reclamation Act ("SMCRA"), which is an 'Act of nationwide force, intended to establish a nationwide program to **protect** society and the environment from the adverse effects of **strip mining!**

#3) A. LIVELIHOOD, by definition: A means of MAINTAINING LIFE, LIVING. It is BEYOND any realm of the imagination that the concerns of **HEALTH** and **SAFETY** are not considered relevant to, and consistent with **LIVELIHOOD!** There is an entire elementary school of children and everyone it entails, as well as innumerable households and businesses throughout the community that will have livelihoods **ADVERSELY** affected during the course of the proposed quarry's operations!

There are minimum of 12 households in the immediate area whose residents are either 'stay -at - home', maintain at least part of their work from their homes, and/or work 7-day swing, or midnight shifts; whereas in that case it is **IMPERATIVE** to sleep during 'NORMAL OPERATION' hours! With any of the

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Aforementioned, from the school children doing their WORK to the individual households maintaining their 'LIVING', it is **INCONCEIVABLE** that a continuum of LIVELIHOODS will be possible **IF** such a quarry operation is permitted at this site! There is NOT 'one' aspect of Living that won't be ADVERSELY affected!!

Also, contrary to the 'opinions' of some that the concerns of the EFFECTS to the area and property values overall is considered 'NIMBY', the fact is: **IF** approved approximately 1000 feet from the Public Elementary School it be NECESSITY of ADVERSITY to provide 'Full Disclosure' of this quarry to **ALL** real estate prospective throughout the community! Disclosure of such pertinent information as the extreme Silica Dust, noise, and hazards of heavy truck traffic will have a profound economical devastation to the areas Realty Market, and the many people whose 'livelihoods' are dependant upon one of the prime INDUSTRIES in the area: REAL ESTATE and THOSE DETERMINANT VALUES!!

The inference that DETRIMENTAL AFFECTS to the single largest INVESTMENT, i.e., our HOMES, does not affect 'LIVELIHOODS' is absurdly ignorant! The **HOME** is the essential basis for LIVELIHOOD! The realty market of the entire community will be **ADVERSELY** affected, with certain properties ultimately being **UNMARKETABLE**, therefore essentially **WORTHLESS**! This is NOT 'NIMBY'!! This IS: ADVERSE LAND USE, ECONOMICAL OBSOLENSE, AND INCURABLE DEPRECIATION!!!

#3) B. We request: A Public Report entailing the effects of such a proposed quarry to the immediate area to include, but not limited to FULL ENVIRONMENTAL IMPACT REPORT, ENVIRONMENTAL DEFICIENCY REPORT to include, but not limited to full improved value of all properties in the area to be **ADVERSELY** affected by the procuring cause of this quarry operation/heavy industry to be approximately 1000 feet from the Public Elementary School And effects to the school in conjunction with an **INCURABLE DEPRECIATION REPORT** to include, but not limited to potential and probable **CONSEQUENTIAL DAMAGES** and depletion of real estate **VALUES** in the area as a direct result of such heavy industry affecting the area's REALTY INDUSTRY.

Jerry L. Stewart Sr. 3/21/06
Kay F. Stewart 3/21/06
Bonnie Davis 3/21/06
Susan Stewart 3/21/06
Jerry L. Stewart Jr. 3/21/06

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BK0844PG122

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MISSOURI LAND RECLAMATION COMMISSION

REC. FEE $ 24.00
PAID BY
RET. TO

69867

GENERAL WARRANTY DEED (Individual)

(1)

This Deed, Made and entered into this 7th day of May, 19 99, by and between RICK ALFORD and KARI ALFORD, husband and wife of the County of Ste. Genevieve State of Missouri party or parties of the first part, and NORMAN S. BELL AND JANET S. BELL, Husband and wife 6042 HIGHWAY 61, BLOOMSDALE, MO 63627 of the County of Ste. Genevieve State of Missouri party or parties of the second part.

WITNESSETH, that the said party or parties of the first part, for and in consideration of the sum of One Dollar and other valuable considerations paid by the said party or parties of the second party, the receipt of which is hereby acknowledged, does or do by these presents GRANT, BARGAIN AND SELL, CONVEY AND CONFIRM unto the said party or parties of the second part, the following described Real Estate, situated in the County of Ste. Genevieve and State of Missouri, to-wit:

Part of a tract as recorded in Book 799, Page 107 of the Ste. Genevieve County Deed Records and being part of the North half of Section 3, Township 38 North, Range 7 East of the Fifth Principal Meridian, Ste. Genevieve County, Missouri, being more particularly described as follows: Commencing as a point of reference an iron pin the South quarter corner of Section 34, Township 39 North; thence along the line between said Township South 84 degrees 39 minutes 20 seconds East 100.00 feet to an iron pin; Thence South 60.00 feet to an iron pin the point of beginning; thence South 20 degrees 20 minutes 21 seconds West 82.51 feet to an iron pin; thence South 77 degrees 19 minutes 22 seconds West 303.80 feet to an iron pin on the Easterly right-of-way line of United States Highway "61" on a curve concave to the East having a radius of 2,814.90 feet to which a radial line bears South 67 degrees 31 minutes 05 seconds West; thence Northerly along said curve through a central angle of 01 degree 44 minutes 36 seconds an arc distance of 85.65 feet to an iron pin; thence leaving said right-of-way line North 55 degrees 08 minutes 01 second East 116.17 feet to an iron pin; thence North 73 degrees 18 minutes 59 seconds East 59.58 feet to an iron pin; thence South 84 degrees 39 minutes 20 seconds East 205.12 feet to the point of beginning.

SEE ATTACHED EXHIBIT "A"

Subject to Building Lines, Covenants, Easements and Restrictions of record, if any.

PARCEL NO. 05-2.0-003-00-000-0002.00
SUBJECT TO ROAD MAINTENANCE AGREEMENT AND RESTRICTIONS
SEE ATTACHED EXHIBIT "B"

TO HAVE AND TO HOLD the same, together with all rights and appurtenances to the same belonging, unto the said party or parties of the second part, and to the heirs and assigns of such party or parties forever.

The said party or parties of the first part hereby covenanting that said party or parties and the heirs, executors, administrators and assigns of such party or parties, shall and will WARRANT AND DEFEND the title to the premises unto the said party or parties of the second part, and to the heirs and assigns of such party or parties forever, against the lawful claims of all persons whomsoever, excepting, however, the general taxes for the calendar year 19 99 and thereafter, and special taxes becoming a lien after the date of this deed.

IN WITNESS WHEREOF, the said party or parties of the first part has or have hereunto set their hand or hands the day and year first above written.

RICK ALFORD

KARI ALFORD

STATE OF MISSOURI } ss.
County of Jefferson

On this 7th day of May, 1999, before me personally appeared RICK ALFORD and KARI ALFORD, husband and wife to me known to be the person or persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal in the County and State aforesaid, the day and year first above written.

My term expires

LORI A BAHR
Notary Public - Notary Seal
STATE OF MISSOURI
JEFFERSON COUNTY
MY COMMISSION EXP. APR. 9,2001

Notary Public

See Quit Claim Deed recorded November 27, 2000 in Book 907 Page 001 Ste. Genevieve County Records

EXHIBIT "A"

BK0844PG123

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The following 30 foot wide roadway and utility easement is hereby reserved by the Grantors, their heirs and/or assigns forever:

A 30 feet wide strip of land being part of a tract as recorded in Book 799, Page 107 of the Ste. Genevieve County deed records and being part of the North half of Section 3, Township 38 North, Range 7 East of the Fifth Principal meridian, Ste. Genevieve County, Missouri, being more particularly described as follows:

Commencing as a point of reference an iron pin the South quarter of Section 34, Township 39 North, thence along the line between said Townships South 84 degrees 39 minutes 20 seconds East 100.00 feet to an iron pin; thence South 60.00 feet to an iron pin; thence South 20 degrees 20 minutes 21 seconds West 46.73 feet to the point of beginning; thence South 20 degrees 20 minutes 21 seconds West 35.78 feet to an iron pin; thence South 77 degrees 19 minutes 22 seconds West 303.80 feet to an iron pin on the Easterly right-of-way line of United States Highway "61" on a curve concave to the East having a radius of 2,814.90 feet to which a radial line bears South 67 degrees 31 minutes 05 seconds West; thence Northerly along said curve through a central angle of 00 degrees 37 minutes 09 seconds an arc distance of 30.42 feet; thence leaving said right-of-way line North 77 degrees 19 minutes 22 seconds East 328.21 feet to the point of beginning and containing 0.22 acres.

BK0844PG124

EXHIBIT "B"

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ROAD MAINTENANCE AGREEMENT

Rick Alford and Kari Alford (Sellers) to hereby agree to install a road on Tract III of Sales contract between Sellers and Norman S. Bell and Janet Bell (Buyers), Dated 4 day of April, 1997.

After construction Sellers and Buers agree to equally share cost ot maintain shared drive way crossing said tract III. This agreement is binding for heirs and assigns.

Rick Alford

Kari Alford

Norman S. Bell

Janet Bell

SUBJECT TO THE FOLLOWING RESTRICTIONS:

NOT TO BE USED FOR ANY COMMERCIAL USE, NO MOBILE OR MODULAR HOMES TO BE PLACED ON PROPERTY, NOR AUTOMOBILES THAT ARE NOT LICENSED OR ROAD WORTHY.

1685

FILED FOR RECORD
at 8 o'clock 44 min A m.
MAY 13 1999
DAVID GEGG, Recorder
Ste. Genevieve County, MO

STATE OF MISSOURI
County of Ste. Genevieve
I hereby certify that this instrument was FILED FOR RECORD at the date and time shown hereon and is recorded in Book 844 Page 122.

DAVID GEGG
Recorder of Deeds

By _____ Deputy

HENRY M. ADKINS & SON, INC. - CLINTON, MO A-2044

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#misc

3. BK0907PG001

QUIT CLAIM DEED (Individual)

REC. FEE $ 21.00 CK
PAID BY
RET. TO

THIS DEED, Made and entered into this 22 day of November, 2000, by and between

Rick G. Alford and Kari L. Alford, his wife

of the County of Ste. Genevieve, State of Missouri, parties of the first part, and

Norman S. Bell and Janet S. Bell, his wife
Address: 6090 Hwy 61, Bloomsdale MO 63627

of the County of Ste. Genevieve, State of Missouri, parties of the second part.

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WITNESSETH, that the said parties of the first part, for and in consideration of the sum of One Dollar and other valuable considerations paid by the said parties of the second part, the receipt of which is hereby acknowledged, do by these presents REMISE, RELEASE AND FOREVER QUIT CLAIM unto the said parties of the second part, the following described Real Estate situated in the County of Ste. Genevieve and State of Missouri, to-wit:

A 30 feet wide roadway easement being part of a tract as recorded in Book 799, Page 107 of the Ste. Genevieve County Deed Records and being part of the North half of Section 3, Township 39 North, Range 7 East of the Fifth Principal Meridian, Ste. Genevieve County, Missouri, being more particularly described as follows: Commencing at a point of reference an iron pin the South quarter corner of Section 34, Township 39 North; thence along the line between said Townships South 84 degrees 39 minutes 20 seconds East 100.00 feet to an iron pin; thence South 60.00 feet to an iron pin; thence South 20 degrees 20 minutes 21 seconds West 46.73 feet to the point of beginning; thence South 20 degrees 20 minutes 21 seconds West 35.78 feet to an iron pin; thence South 77 degrees 19 minutes 22 seconds West 303.80 feet to an iron pin on the Easterly right-of-way line of United States Highway "61" on a curve concave to the East having a radius of 2,814.90 feet to which a radial line bears South 67 degrees 31 minutes 05 seconds West; thence Northerly along said curve through a central angle of 00 degrees 37 minutes 09 seconds an arc distance of 30.42 feet; thence leaving said right-of-way line North 77 degrees 19 minutes 22 seconds East 328.31 feet to the point of beginning and containing 0.22 acres.

The purpose of this Quit Claim Deed is to release all rights in and to a 30 foot wide road easement previously reserved in Warranty Deed dated May 7, 1999 and recorded in Book 0844, Page 122. Easement for utilities reserved therein remains.

TO HAVE AND TO HOLD the same, together with all rights and appurtenances to the same belonging, unto the said parties of the second part, and to the heirs and assigns of such parties forever. So that neither the said parties of the first part, nor their heirs, nor any other person or persons for them or in their names or behalf, shall or will hereafter claim or demand any right or title to the aforesaid premises, or any part thereof, but they and every one of them shall, by these presents, be excluded and forever barred.

IN WITNESS WHEREOF, the said parties of the first part have hereunto set their hands the day and year first above written.

Rick G. Alford

Kari L. Alford

Kari L. Alford

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*

LEGAL NOTICE

Public Notice Of Surface Mining Application Permit Expansion

Fischer Quarry and Hauling LLC, 25501 State Route Z, St. Mary, MO, 63673, has applied to expand their permit from the Department of Natural Resources, Land Reclamation Commission, to mine limestone on 24 acre(s) of land at a new location in Ste. Genevieve County. Section(s) 03, Township(s) 38N, Range(s) 7E. This(ese) operation(s) will be conducted during the approximate dates of March 31, 2006 and October 1, 2055.

Written comments or a request for a hearing and/or an informal public meeting may be made by any person with a direct, personal interest in one or more of the factors that the Missouri Land Reclamation Commission may consider in issuing a permit as required by The Land Reclamation Act, sections 444.760 to 444.790, RSMo, or whose health, safety or livelihood will be unduly impaired by the issuance of a permit regarding items such as permitting and reclamation requirements, erosion and siltation control, excavations posing a threat to public safety, or protection of public road rights-of-way. If a hearing is held the Commission has the ability to consider if the applicant has demonstrated a pattern of noncompliance with other environmental protection laws and regulations administered by the Missouri Department of Natural Resources.

Send written comments to: Director, Land Reclamation Program, Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102.

All comments and written requests for hearings and/or public meetings must be submitted in writing to the Director's office within fifteen (15) days of the last date of publication of this notice.

3-15

Wed., Mar. 1, '06

PUBLIC NOTICE

Private Roadway Easement

Subject to all prior restrictions, reservations, and encumbrances now, and forever, of record: Dated May 7, 1999 and recorded May 13, 1999 in Book No. 844, at Page(s) 122, 123-Exhibit "A", and Page 124–Exhibit "B", which more specifically states restrictions: [In Part] 'Not to be used for any commercial use. . .', in the office of the Recorder of Deeds, Ste. Genevieve County, Missouri, and including Quit Claim Deed of record: Dated November 22, 2000, and recorded November 27, 2000, in Book 907, at Page 001, (as a part of, and duly noted by the Recorder of Deeds in Book 844, at Page 122), whereas did 'remise, release, and forever Quit Claim' roadway easement: Let it be known to all persons, and parties, that the aforementioned private roadway easement, known as Pleasant Heights Dr., is, and forever shall be a private and residential roadway intended for the explicit use, and quiet enjoyment by the immediate residents of said roadway, and which is posted as, 'Private Road–no thru traffic; and shall be, 'Private Road/Private Property–No Trespassing'–**Paid by Kay Stewart for residents of Pleasant Heights Drive.**

3-8

ATTENTION!!

QUARRY TOO CLOSE TO THE BLOOMSDALE ELEMENTARY SCHOOL:

'Public Notice/Mining Permit' for Section 3, Township 38N, Range 7E, will be approximately only 1000 feet from the elementary school unless we speak up for the children. Future health, safety, and livelihoods could be affected for many years, IF approved!

Of the many quarries proposed each year, must this 'ONE' be permitted so close to our children? Please express your concerns and oppose this approval by writing to: Director, Land Reclamation Program, Dept. of Natural Resources, P.O. Box 176, Jefferson City, MO 65102; Please sign the petition to oppose this. For more information call Kay, 483-2656/ Barbara, 483-9797/jormbell@direcway.com

(Public meeting may be allowed at future time)

On behalf of the children let's do the right thing.

PAID FOR BY KAY STEWART FOR CONCERNED CITIZENS FOR THE CHILDREN

NO HUNTING OR TRESPASSING

(To get your name added to the following list there will be a charge of 75 cents per week)

No Hunting or Trespassing on the following property at any time. Violators will be prosecuted.

Angela & Kevin Bieller Property	3-29
Bennie E. Bahr property	5/31/06
Jean Feld Rissover	10/31/06
Anne M. Field Farm	2/9/06
Jeanne A. Kaminski	9/30/06
Autry Property	10/27/06
Grosbauer Family Property	6/14/06
Pleasant Heights Dr. & Private Properties	3-1-07

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EACH NOTICE IS PUBLISHED COINCIDINGLY IN THE SAME PAPER AND TIME.
'NO HUNTING OR TRESPASSING' SHALL CONTINUE INDEFINITELY.

DEPARTMENT OF LABOR & INDUSTRIAL RELATI

Partners with Missouri's Workplace

Search: [ ] Enter

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Division of Labor Standards

Mine Safety and Health - Training

OPTIONAL FORM 99 (7-90)
FAX TRANSMITTAL
# of pages ▶
To | From
Dept./Agency | Phone #
Fax # | Fax #
NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

Silicosis

COURSE/CLASS DESCRIPTION

Issue 3:Silicosis Prevention

DESCRIPTION OF THE ISSUE:

Silicosis is a disease that afflicts the uninformed. It is sometimes a long term process from exposure to critical lung disease. This is the reason it is so important that we present the issues to the mining industry. We must stop the exposure in its acute stages before our miners suffer its effects in time. The number of mines that are overexposed in silica dust samples is alarming. We feel that with prevention and awareness programs we will offer, we can effectively stop Silicosis before the miners in the state begin to suffer its long term effects.

PROPOSED SOLUTION:

We have the perfect vehicle to inform the miner about silicosis and how to prevent its spread. Annual Refresher, New Miner and seminars on the subject will reach the mines and miners that are not targeted as high exposure mines. We will have to develop a special emphasis program aimed at the 49 mines that have higher exposure levels as indicated by the statistics provided. With the help of the Missouri Limestone Producers Association and the Southeast Missouri Mine Safety Association we will be able to reach the 49 mines targeted as high exposure.

Informational handouts and media releases from the Missouri Department of Labor and Industrial Relations will reach a large number of employers explaining the training programs offered. These media releases are targeted at the Mining Industry. At every speaking engagement by the Division of Labor Standards Director and the Safety Program Managers the subject will be addressed. Handouts about the programs will be presented to the mine employers and safety organizations.

GOAL:

We will train the miner in the identification, hazards, effects and prevention of silicosis.

Objective:

The state has 49 mines that have been sampled and found to be above the PEL in concentrations of silica dust at their operation. This impacts 1,244 miners we know of. The mines that are not overexposed will be targeted to further reduce their exposure through proper prevention techniques and site preparation.

We will present Silicosis Prevention classes to the individual mine site. We will present seminars to the

Missouri Limestone Producers Association and other mine safety and health organizations. We will conduct round table discussions at the Southeast Missouri Mine Safety Association Spring Seminar. We will share videos, powerpoint presentations and classroom materials with the mine, miner, union and other state grantees. Through safety meetings we will urge the miner to use proper precautions when working around areas of exposure.

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Outline:

A. What is silica, and what is silicosis
   1. Where is silica found and percentages
      a. Most common element on earth
      b. Quartzite, almost pure
      c. Sandstone, 20-40%
      d. Granite, 20-50%
      e. Limestone, 4-20%
   2. Particle size
      a. 3 to 5 microns most dangerous
      b. 10 microns or greater are too large to be taken into the lung.

B. Exposure levels
   1. Permissible Exposure Level
   2. Causation
   3. What constitutes exposure
      a. Concentration
      b. Duration
   4. If you can see a cloud of dust you may have a possible source of exposure.
   5. The type of material handling may be a possible source.

C. Why should a miner care about silicosis.
   1. We are the largest group exposed to silica on the job.
   2. There is no cure for silicosis
   3. 100% preventable

D. What jobs have the highest silica exposure risk.
   1. Highwall drill operators and helpers
   2. Equipment operators
   3. Crusher operators
   4. Underground drillers and roof bolters.
   5. Clean up personnel and plant maintenance personnel.

E. Why and how can you reduce the risk.
   1. Employee
      a. Assessment of the exposure
      b. Proper personal protective devices
      c. Hygiene
   2. Operator
      a. Installation and maintenance of ventilation systems
      b. Engineering controls
      c. Adjust work procedures
   3. MSHA
      a. MSHA/NIOSH medical screenings in selected areas
      b. Special emphasis programs on silicosis prevention.
      c. Public awareness campaigns to eliminate silicosis.
      d. Sampling and enforcement.

F. Controlling the exposure
   1. Find the source
   2. Reduce the concentration

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3. Reduce the time factor
4. Explore alternative processes
5. Use respiratory protection
6. Medical surveillance

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G. Silicosis Prevention Safe Work Practices
1. Sampling is the most important component of a prevention program.
2. Use dust controlling devices
   a. Water sprays
   b. Detergent kits
   c. Dust collection systems
3. Do not operate dust generating equipment unless controls are in place.
4. Keep floors and work areas free of dust
   a. Where possible vacuum instead of sweeping.
   b. Use wetting agents.
5. Avoidance of dusty areas when possible
   a. If not use respirator.
6. Pay attention to warning signs, barricades and restricted areas.
7. Maintain a complete respirator program
8. Ensure proper fit testing of respirators.
9. Site and equipment preparation
   a. Wetting of the road
   b. Wetting of the face or highwall
   c. Maintain vehicle cab integrity.
   d. Repair faulty equipment, windows, seals and air conditioners.

H. Your rights as a miner.
1. You have the right to complain about work conditions
   a. Section 103.(g) of the Mine Act; 30 CFR Part 43
2. Right to participate in an inspection.
   a. Section 103(f) of the Mine Act: 30 CFR Part 40
3. Right of Workers to contest citations
   a. Section 105(d) of the Mine Act
4. Whistle Blower Protections
   a. Section 195(c) of the Mine Act: 29 CFR 2700 (Subpart E)

I. Symptoms of Silicosis
1. Shortness of breath
2. Severe cough
3. Fatigue
4. Loss of appetite
5. Chest pains
6. Fever
7. These symptoms are the same as many other illnesses
8. You must pay attention to your possibilities of exposure.
9. Get a silicosis medical screening if the symptoms are prolonged.

J. How can a miner determine if he or she has silicosis.
1. Work History
   a. Were you exposed
2. Checkup to determine the early signs of lung disease
3. Chest x-ray
4. Pulmonary function test
5. Tuberculosis evaluation

...e:

...h class will be tailored to be mine specific and the time will fluctuate depending on class participation.

There are three types of silicosis:

*** o Chronic silicosis (Long-term exposure to low amounts of silica) ***
- o Accelerated silicosis (Short-term exposure to high amounts of silica)
- o Acute silicosis (Short-term exposure to extremely high amounts of silica)

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Contact Information
Phone Number: (573) 751-3403
Email:laborstandards@dolir.mo.gov
Missouri Division of Labor Standards Home Page
Missouri Department of Labor and Industrial Relations Home Page
Missouri State Government Home Page
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** Last updated: 1/28/2005

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OMYA	**Material Safety Data Sheet** **Omya California: Untreated**	5-msds USLU_M01 version: 2 page: 1 / 3 valid: 9/20/2005

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SECTION 1 – PRODUCT IDENTIFICATION AND USE

Product: Calcium Carbonate (Limestone)

Product Uses: Mineral filler and pigment

Chemical Formula: Primarily $CaCO_3$

Trade Names:

OMYACARB® 2 - LU	OMYACARB® 8 - LU	OMYACARB® 40 - LU	OMYACARB® HP
OMYACARB® 3 - LU	OMYACARB® 10 - LU	OMYACARB® BP - LU	OMYACARB® MP 200
OMYACARB® 4 - LU	OMYACARB® 15 - LU	OMYACARB® CP - LU	TITAN® 200 - LU

Producer: Omya California Inc.

Address: 7299 Crystal Creek Road, Lucerne Valley, California, USA 92356

Telephone: (760) 248-5200

Emergency: (800) 424-9300 (CHEMTREC)

SECTION 2 – HAZARDOUS INGREDIENTS

Ingredients:	Wt. % (typical):	CAS #:	Exposure Limits (TWA) mg/m³:
Limestone (calcium carbonate)	> 99	1317-65-3	ACGIH TLV: Total dust, 10 (<1% silica) OSHA PEL: Total dust, 15 Respirable dust, 5
Silica, quartz *(naturally-occurring component of limestone)*	< 0.3	14808-60-7	ACGIH TLV: Respirable dust, 0.05 OSHA PEL: Total dust, 30 / % silica + 2 Respirable dust, 10 / % silica + 2

Hazardous Materials Identification System:
(National Paint & Coatings Association)

Category	Rating
Health	1*
Flammability	0
Physical Hazard	0

SECTION 3 – PHYSICAL CHARACTERISTICS

Appearance and Odor: White powder; no odor.

Density: 2.7 g/ml

Solubility in Water: 1.3 mg/100 g @ 18°C

SECTION 4 – FIRE AND EXPLOSION DATA

Flash Point: Non-flammable.

Special Fire Fighting Procedures: None.

Unusual Fire and Explosion Hazards: None.

OMYA	**Material Safety Data Sheet** **Omya California: Untreated**	5-msds USLU_M01 version: 2 page: 2 / 3 valid: 9/20/2005

SECTION 5 – REACTIVITY DATA

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Stability: Stable.

Reactivity in Water: None.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Thermal decomposition can produce calcium oxide and carbon dioxide.

Incompatibility (Material to Avoid): Reacts with acids to liberate carbon dioxide. Ignites on contact with fluorine. Also incompatible with alum and ammonium salts.

SECTION 6 – TOXICOLOGICAL PROPERTIES AND HEALTH HAZARD DATA

EFFECTS AND HAZARDS OF ACUTE EXPOSURE:

Inhalation: Dust may irritate the respiratory tract. Symptoms include sneezing and slight nose irritation.

Eye Contact: Irritation. Symptoms include watering and irritation.

Skin Contact: Repeated or prolonged exposure may have a drying effect on the skin, and may also cause irritation.

Ingestion: Ingestion of very large quantities may result in intestinal obstruction and/or constipation.

EFFECTS AND HAZARDS OF CHRONIC EXPOSURE:

There are no reported health effects associated with repeated or prolonged exposure to pure calcium carbonate. Chronic exposure to limestone dust at concentrations exceeding occupational exposure limits may cause pneumoconiosis (lung disease). This product contains crystalline silica (quartz) as an impurity. Chronic exposure to crystalline silica dust at concentrations exceeding occupational exposure limits may cause silicosis. The NTP's Ninth Report on Carcinogens lists crystalline silica (respirable size) as a known human carcinogen. IARC concluded that there is sufficient evidence in humans for the carcinogenicity of inhaled (respirable) crystalline silica.

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Carcinogens Listed in the Eleventh Report

Part A. Known to be Human Carcinogens.

Bold entries indicate new or changed listing in *The Report on Carcinogens, Eleventh Edition.*

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Silica, Crystalline (Respirable Size)*

Known to be a human carcinogen
First Listed in the *Sixth Annual Report on Carcinogens* (1991)

Carcinogenicity

Respirable crystalline silica, primarily quartz dusts occurring in industrial and occupational settings, is *known to be a human carcinogen*, based on sufficient evidence of carcinogenicity from studies in humans indicating a causal relationship between exposure to respirable crystalline silica and increased lung cancer rates in workers exposed to crystalline silica dust. Respirable crystalline silica was first listed in the *Sixth Annual Report on Carcinogens* in 1991 as *reasonably anticipated to be a human carcinogen* based on evidence of carcinogenicity in experimental animals; however, the listing was revised to *known to be a human carcinogen* in the *Ninth Report on Carcinogens* in 2000.

Hazardous human exposure to respirable crystalline silica, primarily quartz dusts, occurs mainly in industrial and occupational settings (discussed in "Exposure"). The link between human lung cancer and exposure to respirable crystalline silica was strongest in studies of quarry and granite workers and workers involved in ceramic, pottery, refractory brick, and diatomaceous earth industries. Human cancer risks are associated with exposure to respirable quartz and cristobalite but not to amorphous silica. The overall relative risk is approximately 1.3 to 1.5, with higher risks found in groups with greater exposure or longer latency. Silicosis, a marker for exposure to silica dust, is associated with elevated lung cancer rates, with relative risks of 2.0 to 4.0. Elevated risks have been seen in studies that accounted for smoking or asbestos exposure, and confounding is unlikely to explain these results (IARC 1997).

The findings in humans are supported by studies in experimental animals demonstrating consistent increases in lung cancers in rats chronically exposed to respirable crystalline silica by inhalation or intratracheal instillation. No lung tumors were observed in hamsters exposed to quartz by intratracheal instillation. Single intrapleural or intraperitoneal injections of various forms of respirable crystalline silica caused lymphomas in rats (IARC 1997).

Additional Information Relevant to Carcinogenicity

Respirable crystalline silica deposited in the lungs causes epithelial injury and macrophage activation, leading to inflammatory responses and cell proliferation of the epithelial and interstitial cells. In humans, respirable crystalline silica persists in the lungs, culminating in the development of chronic silicosis, emphysema, obstructive airway disease, and lymph node fibrosis. Respirable crystalline silica stimulates (1) release of cytokines and growth factors from macrophages and epithelial cells; (2) release of reactive oxygen and nitrogen intermediates; and (3) oxidative stress in lungs. All these pathways contribute to lung disease. Marked and persistent inflammation, specifically inflammatory cell-derived oxidants, may provide a mechanism by which respirable crystalline silica exposure can result in genotoxic effects in the lung parenchyma. In a human study, subjects exposed to respirable crystalline silica had increases in sister chromatid exchange and chromosomal aberrations in peripheral blood lymphocytes. Most cellular genotoxicity studies with quartz samples were negative; however, *in vitro* exposure to some quartz samples induced micronuclei or cell transformation in several cell types, including Syrian hamster embryo cells, Chinese hamster lung cells, and human embryonic lung cells (IARC 1997).

Properties

Silica, a group IV metal oxide, exists as colorless or white trigonal crystals. The molecular weight of silica (silicon dioxide) is 60.1. It occurs naturally in crystalline and amorphous forms, and the specific gravity and melting point depend on the crystalline form. The basic structural units of the silica mineral are silicon tetrahedra (SiO_4). Slight variations in the orientation of the silicon tetrahedra result in the different polymorphs of silica; crystalline silica has seven polymorphs. In crystalline silica, silicon and oxygen atoms are arranged in definite regular patterns throughout (Parmeggiani 1983).

Quartz, cristobalite, and tridymite are the three most common crystalline forms of free silica. Quartz is by far the most common; it is found abundantly in most rock types, including granites and quartzites, and in sands and soils. Cristobalite and tridymite are found in volcanic rocks. All three forms are interrelated and may change their form under different temperature and pressure conditions. The quartz structure is more compact than that of tridymite or cristobalite (IARC 1987, 1997). Quartz melts to a glass, and its coefficient of expansion by heat is the lowest of any known substance. Silica is practically insoluble in water at 20°C and in most acids; but its solubility increases with temperature and pH, and is affected by the presence of trace metals. The rate of solubility also is affected by particle size, and the external amorphous layer in quartz is more soluble than the crystalline underlying core. Silica dissolves readily in hydrofluoric acid producing silicon tetrafluoride gas (Merck 1989, IARC 1997).

Exposure

Crystalline silica is an abundant and commonly found natural material. Human exposure to respirable crystalline silica, primarily quartz dusts, occurs mainly in industrial and occupational settings. Respirable quartz levels exceeding 0.1 mg/m³ are most frequently found in metal, nonmetal, and coal mines and mills; in granite quarrying and processing; in crushed stone and related industries; in foundries; in the ceramics industry; in construction; and in sandblasting operations (IARC 1997). The National Occupational Exposure Survey (NOES), conducted by NIOSH from 1981 to 1983, estimated that 944,731 total workers, including 112,888 females, were occupationally exposed to quartz and 31,369 total workers, including 2,228 female workers, were exposed to cristobalite. NIOSH's National Occupational Hazard Survey (NOHS), conducted from 1972 to 1974, estimated that 81,221 workers were exposed to quartz (NIOSH 2003). NIOSH (2002) estimated that 522,748 workers in nonmining industries and 722,708 workers in mining industries were potentially exposed to respirable crystalline silica in 1986.

Potential exposure to respirable crystalline silica has been studied in metal and nonmetal mining and milling operations. Workers in sandstone, clay, and shale, and in miscellaneous nonmetallic mineral mills had the highest exposures to silica dust. Within the mills, the workers with the highest exposures were the baggers, general laborers, and personnel involved in the crushing, grinding, and sizing operations. Granite and stone industry and construction personnel also are potentially exposed to respirable crystalline silica. Sculptors and carvers, stencil cutters, polishers, and sandblasters had the highest potential exposures; the silica content of respirable dust ranged from 4.8% to 12.2%. Respirable crystalline silica exposures in clay pipe factories ranged from 0.01 to 0.20 mg/m³; 10% of 348 samples collected from glass manufacturing industries had silica concentrations at least two times the permissible exposure standards; 23% to 26% of samples from clay products and pottery industries had concentrations more than twice the exposure limits; one-third of dust samples from fibrous glass plants had concentrations of respirable crystalline silica in excess of 0.10 mg/m³; levels of respirable crystalline silica in a ceramic electronic equipment parts plant ranged from 0 to 0.18 mg/m³; and 23% of samples collected in iron and steel foundries had concentrations in excess of 0.20 mg/m³ respirable crystalline silica (IARC 1987). Occupational exposure to cristobalite may occur in industries where silica products are heated, including refractory brick and diatomaceous earth plants and ceramic and pottery manufacturing plants (IARC 1997).

Nonoccupational exposure to respirable crystalline silica results from natural processes and anthropogenic sources; silica is a common air contaminant. Residents near quarries and sand and gravel operations are potentially exposed to respirable crystalline silica. A major source of cristobalite and tridymite in the United States is volcanic rock in California and Colorado (NIOSH 1986). Local conditions, especially in

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1: Clin Chest Med. 2002 Dec;23(4):811-26. Related Articles, Links

Update on respiratory disease from coal mine and silica dust.

Cohen R, Velho V.

Rush University Medical College, Division of Occupational Medicine and Pulmonary Medicine/Critical Care, Cook County Hospital, Chicago, IL, USA. bobcohen@uic.edu

Coal mine and silica dust cause significant respiratory disease in spite of modern dust control regulations. Susceptible individuals in exposed populations may develop fibrosing lung disease, obstructive airways disease, including chronic bronchitis and emphysema, or lung cancer. A careful occupational history that elicits exposure to respiratory hazards is the cornerstone of an accurate diagnosis. Treatment involves removal from exposure, supportive care, pulmonary rehabilitation, and when disabling disease is present, assistance obtaining compensation.

Publication Types:

- Review

PMID: 12512167 [PubMed - indexed for MEDLINE]

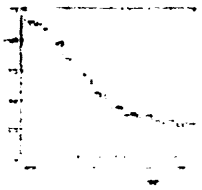

Figure 1. (click image to zoom)

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During 1968-2002, the age-adjusted silicosis mortality rate was elevated in several counties in western states (Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Washington), eastern states (Georgia, Kentucky, New York, North Carolina, Maine, Ohio, Pennsylvania, Tennessee, Vermont, Virginia, and West Virginia), and central states (Illinois, Kansas, Michigan, Minnesota, Missouri, Oklahoma, South Dakota, Vermont, and Wisconsin). San Juan County, Colorado, had the highest age-adjusted mortality rate (524 per million persons aged ≥15 years) (Figure 2).

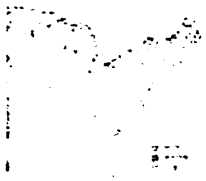

Figure 2. (click image to zoom)

For usual industry and occupation codes, a total of 1,400 silicosis deaths were reported in the 26 states for one or more selected years during 1985-1999. Metal mining had the highest PMR (39.2; CI = 32.9-46.8) among industries (Table). Among occupations, miscellaneous metal and plastic-processing machine operator had the highest PMR (90.1; CI = 51.5-146.3).

Reported by: *KM Bang, PhD, JM Mazurek, MD, MD Attfield, PhD, Div of Respiratory Disease Studies, National Institute for Occupational Safety and Health, CDC.*

* ICD-8 code 515 (1968-1978), ICD-9 code 502 (1979-1998), and ICD-10 code J62 (1999-2002).[3]
†Alaska, Colorado, Georgia, Hawaii, Idaho, Indiana, Kansas, Kentucky, Maine, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, Rhode Island, South Carolina, Tennessee, Utah, Vermont, Washington, West Virginia, and Wisconsin.
§Defined as the observed number of deaths from silicosis in a specified occupation or industry divided by the expected number of silicosis deaths. The expected number of deaths was calculated by using the total number of deaths in the Bureau of Census Industry Code or Census Occupation Code of interest multiplied by a proportion defined as the number of cause-specific deaths for the condition of interest in all industries/occupations, divided by the total number of deaths in all industries/occupations.

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Workers Health Centre

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What is silica dust?

Silica is the main component in sand and in rocks like sandstone and granite. Many workplaces are not aware that common building products such as clay bricks, concrete, tiles and fibro cement products contain silica. Silica dust is usually created when such building products, sandstone or rocks are cut, drilled or worked on in a way that creates fine particles of silica in the air. It is breathing in this crystalline form of silica that causes silicosis.

Who is affected?

Silicosis is not a naturally occurring disease. Its development is directly associated with workplace exposure to silica dust. Workers who are most at risk include those engaged in tunneling and excavation work, road building, demolition work and explosive blasting work, as well as those in slate, granite cutting and glass manufacturing industries, brickmaking and some manufacturing processes.

Health effects of silica dust

Initial exposure to silica dust will cause irritation of the eyes, nose and throat like most other dusts. However, if excessive amounts of silica dust are breathed into the lungs over a period of time, it can cause damage to the lung tissue. Other than some breathlessness during exercise, the disease can remain free of symptoms for 10-20 years after exposure.

The most common form of silicosis develops after long exposure to relatively low concentrations. Once the disease has begun, it will continue to progress even if the worker is removed from further exposure. There is no medical treatment for silicosis. People with silicosis are also at greater risk of developing lung cancer. In 1996 the International Agency for Research on Cancer classified crystalline silica dust as a human carcinogen (Group 1).

The size of the silica particles is important in causing the disease. Larger particles are usually prevented from reaching the lung's small air sacs, it is the smaller particles (less than five thousandths of a millimetre) that are the most dangerous.

The development of silicosis depends on a number of factors including:

- the amount and kind of dust inhaled
- the percentage of free silica in the dust
- the form of silica
- the size of the silica particles
- the duration of exposure
- the individual's natural body resistance
- the presence or absence of complicating factors (such as infection).

TerraServer USA

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The National Map

6150 US-61, Bloomsdale, MO 63627
65 km S of St. Louis, Missouri, United States 4/1/1996

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Street
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City
Bloomsdale
State
MO GO

Longitude -90.24146
Latitude 38.03601
GO

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Size
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yds

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House and Home Demographics:
- ☐ Schools, Crime and Demographics for 63627
- ☐ Schools, Crime and Demographics for 63670

Source=107371 Running Time 62.50 ms

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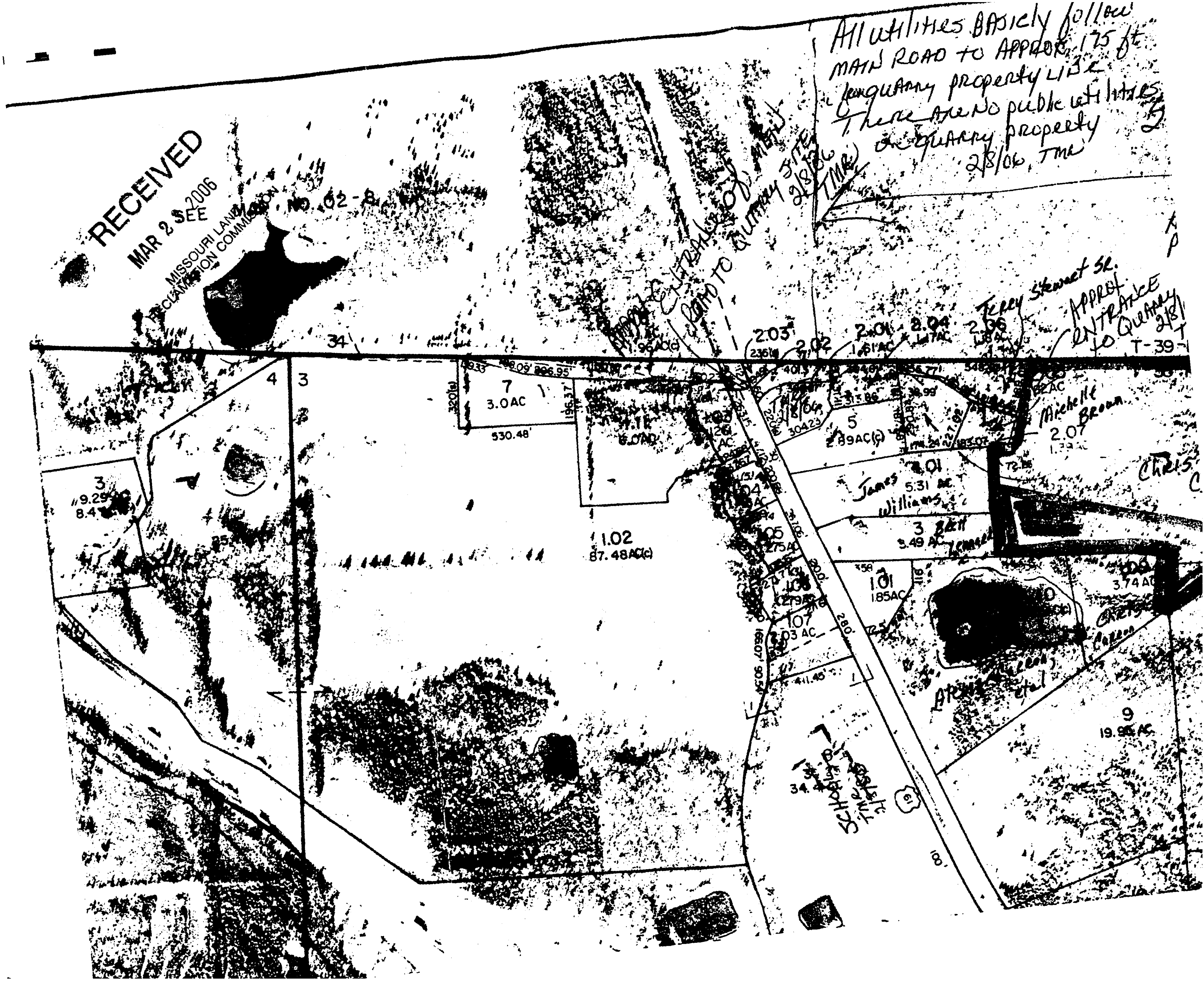
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All utilities basicly follow main road to approx. 175 ft. of quarry property line
There are no public utilities on quarry property
2/8/06, TMR
34
4
3
7
3.0AC
530.48'
1.02
87.48AC(c)
2.03
2.02
2.01
2.04
2.06
5
2.89AC(c)
James Williams
5.31 AC
3
3.49 AC
1.01
1.85AC
1.05
1.04
1.07
9
19.96 AC
3.74 AC
2.07
Michelle Brown
Terry Stewart Sr.
Approx. entrance to quarry
T-39
School
19
280'
101